(No Model.)

S. WHITLOCK.

SLIDING BEARER FOR PRINTING MACHINES.

No. 332,577. Patented Dec. 15, 1885.

Fig. 1

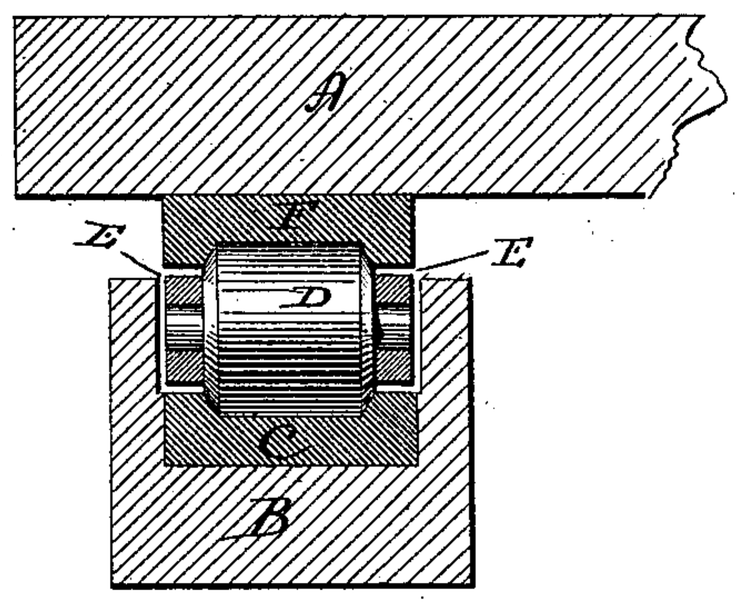
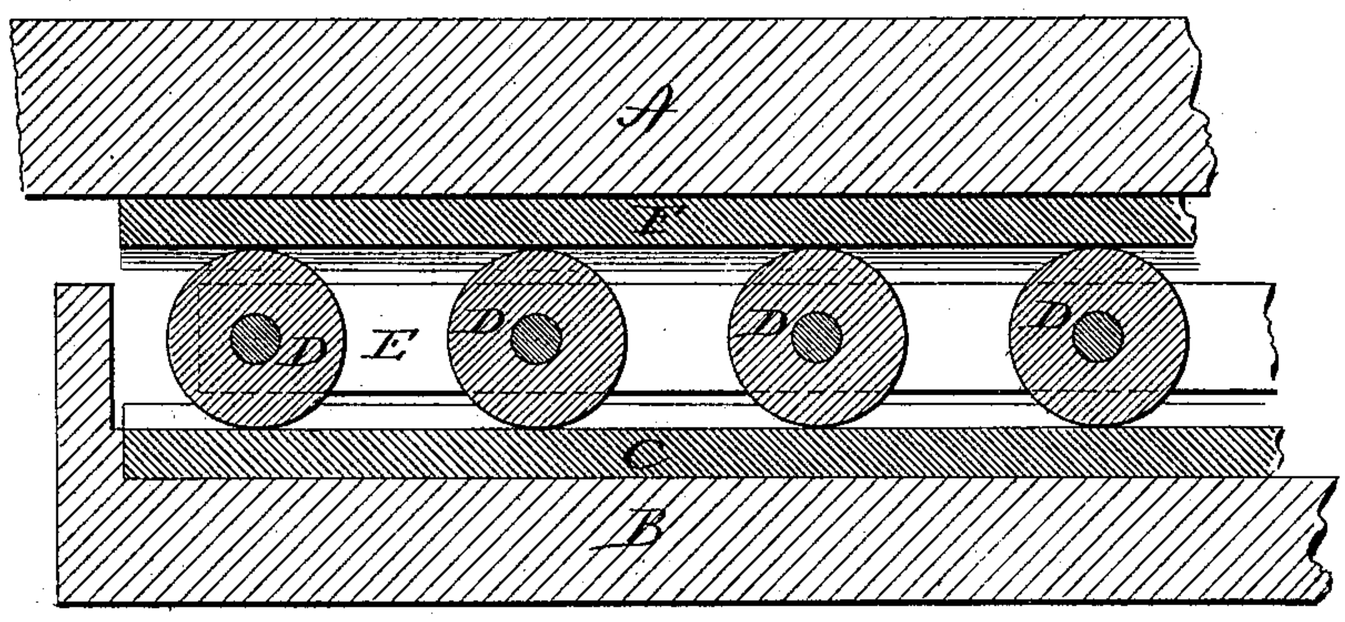


Fig. 2



Witnesses.
J. N. Shumway
Fred C. Earle

Sturges Whitlock,
Inventor.
By Atty.
Wm. C. Earle

UNITED STATES PATENT OFFICE.

STURGES WHITLOCK, OF BIRMINGHAM, CONNECTICUT.

SLIDING BEARER FOR PRINTING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 332,577, dated December 15, 1885.

Application filed June 25, 1885. Serial No. 169,695. (No model.)

To all whom it may concern:

Be it known that I, STURGES WHITLOCK, of Birmingham, in the county of New Haven and State of Connecticut, have invented a new Improvement in Sliding Bearings for Printing-Machines; and I do hereby declare the following, when taken in connection with accompanying drawings and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1, a transverse section through the trough, shoes, and type-bed, showing a side view of one of the rolls; Fig. 2, a longitudinal section through the type-bed, trough, shoes, and rolls.

This invention relates to an improvement in that class of printing-presses in which a reciprocating type-bed is employed, and particularly to the anti-frictional devices upon which the bed moves.

In the most approved anti-frictional devices for type-beds a series of rolls are arranged beneath the bed, with their axes at right angles to the path of movement of the bed, and the axes of the several rolls connected by bars, so as to maintain the parallelism of the respective rolls, the rolls arranged between the under side of the bed and a track below, so as to travel back and forth upon the track, while the bed rides upon their upper surface; but in the use of this class of "sliders" a considerable difficulty is experienced in properly lubricating the rolls, and if such proper lubrication can be maintained the oil supplied to the rolls is thrown off and onto the adjacent parts of the machine, not only covering the exposed portion of the machine with grease, but consuming a much greater quantity of lubricating material than is essential for the proper working of the machine.

The object of my invention is to overcome these difficulties; and it consists in the arrangement of a grooved shoe in the bottom of a trough with a corresponding shoe upon the under side of the bed, with the slider-rolls arranged in the respective grooves and connected, the sides of the said trough extending upward, so as to substantially inclose the rolls, and thereby not only retain the lubricating material, but prevent its being thrown over other parts of the machine, or to waste, and as more fully hereinafter described.

A represents the type-bed. Beneath the bed, and in the proper position for the slider, a trough, B, is arranged, the length of this trough depending upon the length of the reciprocating movement required for the bed. This trough has its sides and ends closed, but open at the top. In the bottom of the trough is a steel shoe, C, having the upper surface grooved to receive the slider-rolls D. The several slider-rolls D are alike in shape, being cylindrical throughout a greater portion of their length, but at each end contracted in diameter into conical shape, the shape of the shoe in transverse section corresponding to the longitudinal surface of the rolls—that is, the sides of the shoe diverge corresponding to the shape of the ends of the rolls, and as seen in Fig. 1. The slider-rolls are connected by bars E, with their axes all parallel and at right angles to the shoe C, in which they are to run. Upon the under side of the bed A a shoe, F, is fixed above the shoe C, and of the same shape upon its under surface, and so as to rest upon the upper side of the rolls as the rolls do in the shoe below, and so as to take a bearing not only upon the periphery of the rolls, but upon the two ends, so as to be prevented from transverse movement. The sides of the trough extend up each side of the rolls and at the ends, so as to substantially inclose the rolls. This extension of the sides of the trough upward prevents the oil from being thrown outward by the rolls or working therefrom so as to flow over other parts of the machine.

The oil may be supplied to the rolls in any considerable quantity, and will be retained by the trough without possibility of escape; hence the soiling of the surrounding portion of the machine by the oil, or its waste, is avoided, and the constant and proper lubrication of the sliders is insured.

The shoes are made from steel, and adapted the one to fit closely in the bottom of the trough, and the other to be fixed to the under side of the bed.

From the foregoing it will be understood that I do not claim, broadly, a slider for printing-presses, composed of a series of rolls connected by bars, and with their axes at right

angles to the path of movement of the bed, the rolls being properly guided; but

What I do claim is—

In a printing-press, the combination of the type-bed, the trough B, arranged below it and in the line of movement required for the bed, the grooved shoe C, arranged in the bottom of the trough, the corresponding grooved shoe, F, upon the under side of the bed, the grooves of the two shoes in the line of movement of the bed and parallel with each other, a series of rolls, D, the periphery of the rolls corresponding to the grooves in the two shoes, the axis of the rolls at right angles to the path of movement of the bed, and the several rolls connected by bars E, the sides of the trough extending upward, so as to substantially inclose the rolls, and substantially as and for the purpose described.

STURGES WHITLOCK.

Witnesses:
JOHN E. EARLE,
FRED. C. EARLE.